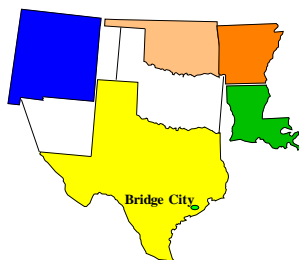


BAILEY WASTE DISPOSAL (ORANGE COUNTY) TEXAS

EPA ID# TXD980864649

Site ID: 0602911



EPA REGION 6 CONGRESSIONAL DISTRICT 02

Contact:
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Last Updated: June 2013

Background

The Bailey Waste Disposal Site is located approximately three miles southwest of Bridge City in Orange County, Texas. The Site was originally part of a tidal marsh near the confluence of the Neches River and Sabine Lake. Two ponds, A and B, were constructed on the property by the landowner, Mr. Joe Bailey, as part of the Bailey Fish Camp in the early 1950s by dredging the marsh and piling the sediments to form levees which surround the ponds. The fish camp was active until September 1961 when it was destroyed by Hurricane Carla which introduced saline waters into the ponds, killing the freshwater fish. The total site, including the two rectangular ponds, occupies approximately 280 acres. However, the area of the site that required cleanup comprises: (i) North Marsh Area (approximately four acres); (ii) North Dike Area (approximately 9 acres) and (iii) the East Dike Area (approximately 6 acres).

Mr. Bailey allowed the disposal of industrial and municipal waste within the levees along the north and east margins of Pond A during the 1950s and 1960s (the North Dike Area and East Dike Area, respectively). In addition to the waste located within the North Dike Area and East Dike Area, waste was also present in the North Marsh Area. Waste Disposal operations at the site ceased in 1971.

Current Status

The EPA, with concurrence of the State of Texas, has determined that all appropriate responses under CERCLA have been completed, and that no further response actions under CERCLA, other than Operation and Maintenance (O&M) and five-year reviews, are necessary. Therefore, EPA has deleted the Site from the National Priorities List (NPL). The Notice of Intent to Delete and the Direct Final Notice of Deletion were signed by the EPA Region 6 Regional Administrator on July 19, 2007, and was published in the Federal Register for public comment on August 14, 2007. Since EPA received no adverse comments on the Federal Register Notice by the September 13, 2007 deadline, the Site was deleted from the NPL effective October 15, 2007.

The third Five-Year Review was completed in September 2010 and found that the selected remedy for the Bailey Waste Disposal Site is protective of human health and the environment. The site remedy called for excavation and off-site disposal of the most problematic waste (i.e., mobile) followed by on-site consolidation and capping of the remaining contaminated soils. Site construction activities were completed in August 1997. The caps are effective at containing contaminants by preventing infiltration of rainwater and by preventing direct contact with contaminated soils.

To achieve long-term remedy effectiveness, it is necessary to maintain the integrity of the final cover in accordance with approved plans. This includes, but is not limited to, mowing, removing shrubs and trees, keeping riprap areas clear of vegetative growth, making repairs to the caps as necessary to correct the effects of erosion, settlement, cracking, and animal activity (i.e., burrowing) and prohibiting trenching, digging and other destructive activities. Inspections are performed as specified in the September 1997 *Final Inspection*,

Maintenance and Monitoring Plan. Institutional controls in the form of deed notices were filed with the Office of the Orange County, TX Clerk on August 02, 2006.

Benefits

Over 156,000 cubic yards of hazardous materials have been addressed to prevent direct contact and off-site migration. Sensitive wetlands have been protected and made safe for wildlife and recreational activities.

National Priorities Listing (NPL) History

NPL Proposed Date: October 5, 1984
NPL Final Date: May 20, 1986
NPL Delisting: October 15, 2007

Site Description

Location: The site is located approximately 3 miles southwest of Bridge City in Orange County, Texas (see Site Map). The site was originally part of a tidal marsh near where the Neches River and Sabine Lake join together.

Population: Approximately 7,600 people within three miles of the site use wells for drinking water.

Setting: The site is located in a marsh area. The two capped waste areas occupy approximately ten acres.

Wastes and Volumes

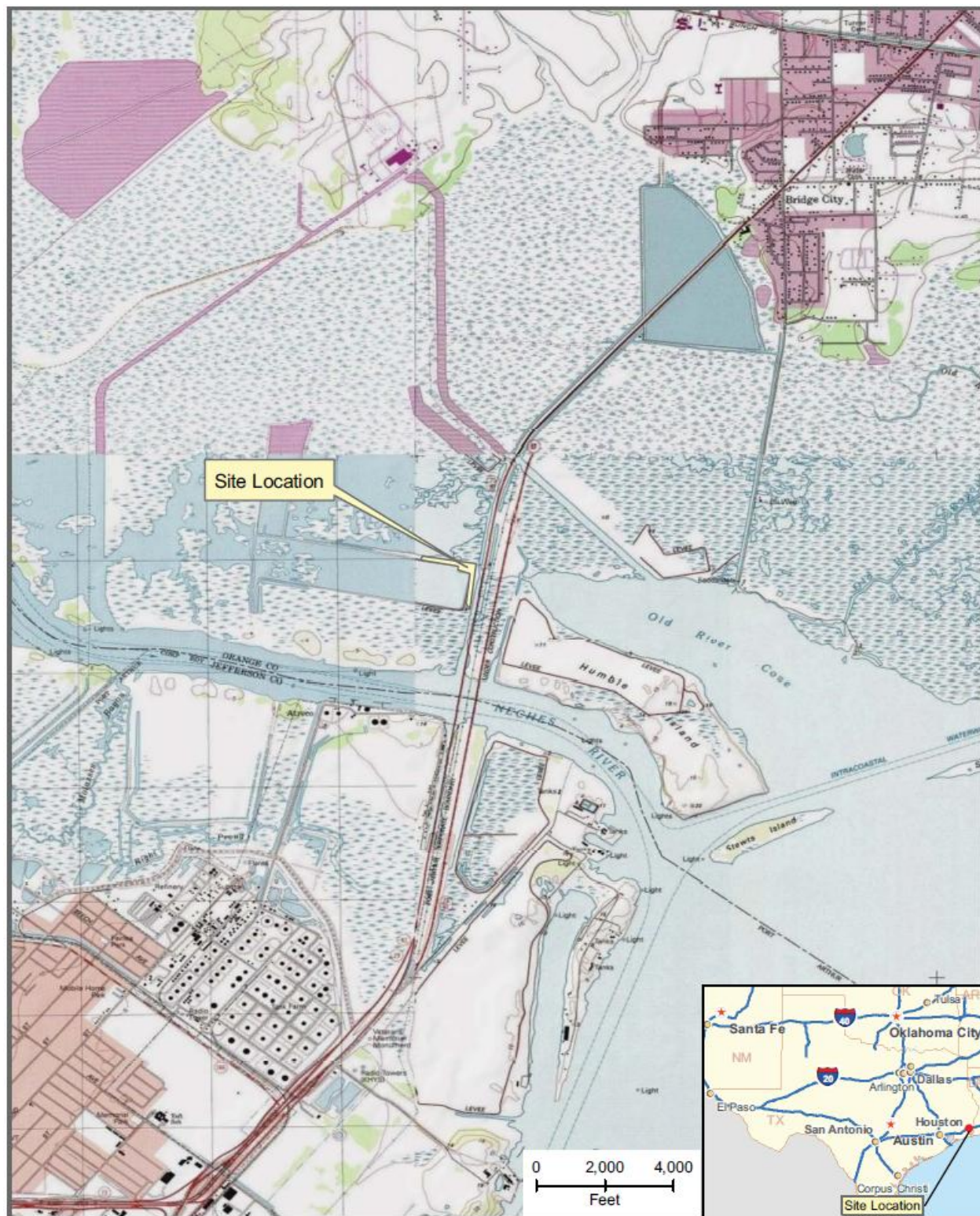
The principal pollutants at the Bailey Waste Disposal site are metals, arsenic compounds, benzene, phenols, pyridines, naphthalene, and chlorinated hydrocarbons in soil. Waste volume is approximately 156,000 cubic yards.

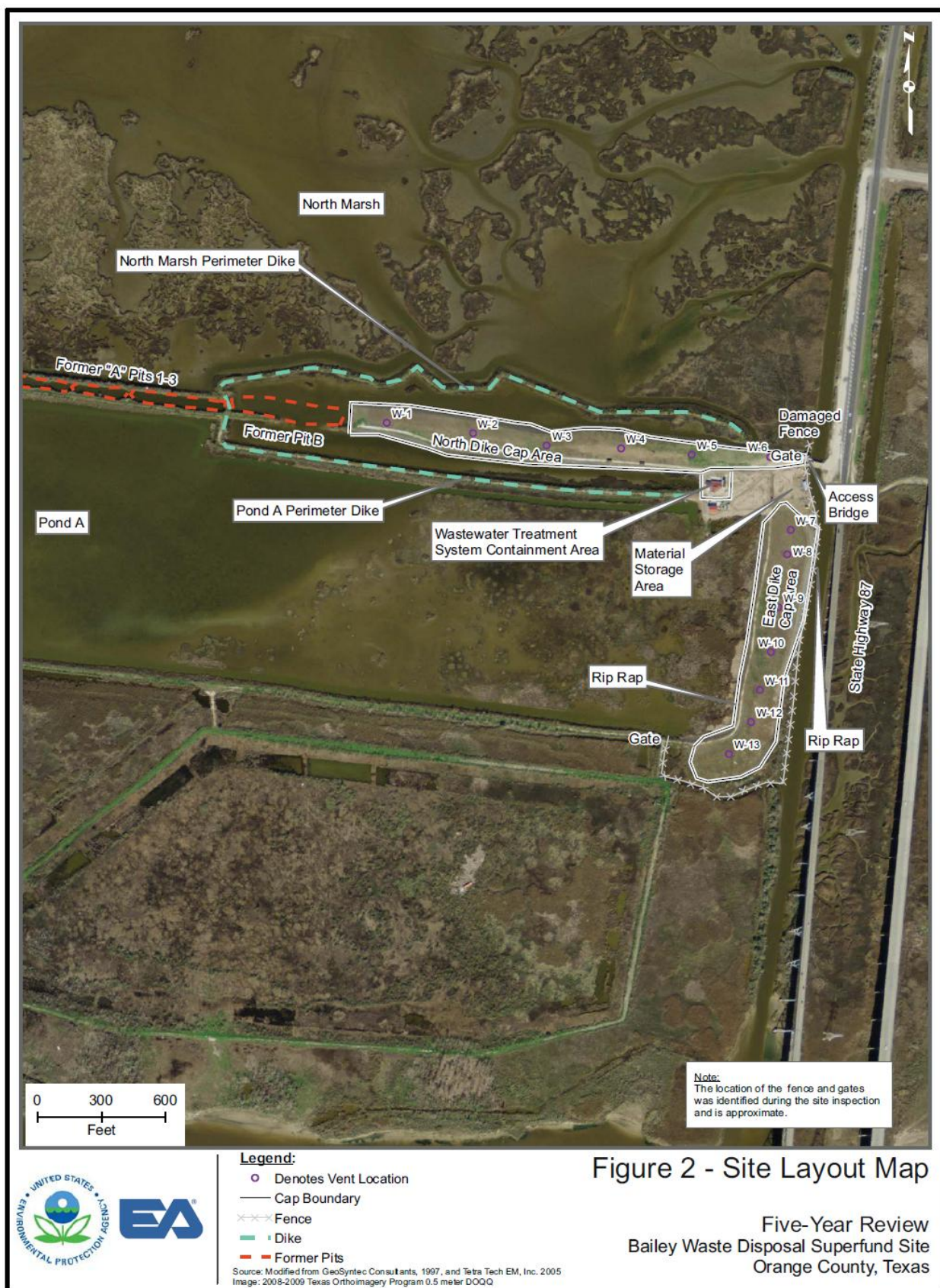
Health Considerations

Analysis conducted by the State revealed chloroform, phthalates, trichloroethylene, and other compounds in surface water, ground water, and soils on site. The most significant risks to human health and the environment included the following:

- Direct contact – many of the organic compounds and heavy metals found on the site have been determined to be carcinogens (i.e., can cause cancer). Absorption through the skin or other routes of inadvertent ingestion posed potential health risks.
- Surface waters – Marsh was directly impacted from the site wastes, which had migrated into it, including organic compounds and heavy metals. Site waste has been removed from the marsh.
- Ground water – shallow ground water directly beneath the waste was contaminated with organic compounds and heavy metals.

Site Map







View from the Rainbow Bridge looking west at the East Dike Area

Record of Decision (ROD)

Original ROD signed June 28, 1988
Explanation of Significant Differences – North Marsh
February 8, 1996
Explanation of Significant Differences – Pit B
May 1, 1996
Record of Decision Amendment
December 16, 1996

In June 1988, the EPA selected a remedy consisting of the following components:

- Consolidation of affected sediments from the marsh, drainage channel, drum disposal, and Pit A-3 sectors in to the Waste Channel (North Dike Area) sector;
- In place stabilization of the waste in the Waste Channel sector and the sector East of Pond A (East Dike Area), and
- Construction of a cover on top of the stabilized waste.

After numerous in-place stabilization attempts, subsequent investigations, and a stabilization field pilot study, it was determined that the waste stabilization performance standards established in the ROD, and the remedial design would, if possible at all, be significantly more difficult, more time-consuming, and more costly to implement than was contemplated at the time the original ROD was issued. Due to these difficulties, implementation of the original ROD was not completed. The following components, however, were accomplished during the implementation of the original remedy:

- Waste/soil interface evaluation;
- Consolidation and relocation of shallow wastes within the East Dike Area;
- Construction of clay dikes around the East Dike Area;
- Construction of access roads and support lay down area;
- Stabilization of approximately one-third of the East Dike Area on the southern end;
- South drum disposal area remediation;
- Closure of wells and piezometers;
- Construction of a wastewater treatment plant to treat potentially contaminated water generated during the construction operations, including decontamination water, storm water from active areas, and ground water from dewatering operations; and
- Air monitoring to ensure action levels on site was not exceeded.

The interim remedial actions taken at the site are discussed in the Explanation of Significant Differences (ESD) dated February 8, 1996, and another ESD dated May 1, 1996. The following activities were accomplished during the interim remedial activities:

- Excavation of waste and affected sediments from the North Marsh Area and Pit B and transportation of this material to an off-site industrial landfill for solidification and disposal;
- Excavation and on-site relocation of waste and affected sediments from Pits A-1, A-2, and A-3;
- Verification (to a visually clean performance standard) that waste and affected sediments from the drainage channel and the south drum disposal area are removed during the original remedy;
- Waste and affected sediment relocation from the drum disposal area located on the North Dike Area to the East Dike Area;
- Placement of interim soil cover over the south portion of the East Dike Area, which had waste material exposed (active area);
- Closure of an existing on-site water supply well; and
- Air monitoring during intrusive activities to ensure action levels was not exceeded.

The ROD was amended in December 1996 and replaced the in-place stabilization component of the original remedy with lightweight composite caps over the North Dike and East Dike areas of the site. Major activities performed during the revised remedial action are summarized below:

- Relocation and consolidation of surface waste from the south end of the North Dike Area to a location within the limits of the area to be capped;
- Relocation and consolidation of bulk waste from the area adjacent to the former Pit B area to a location within the limits of the area to be capped;
- Installation of a water collection system to intercept and remove ground water that was elevated in the short term (i.e., during construction of the cap) due to consolidation of the waste (this water was taken on-site for disposal);
- Construction of a lightweight cap over the East and North Dike Areas;
- Installation of storm water management controls to route storm water runoff from disturbed areas during construction to the treatment system, and divert storm water runoff from inactive or completed areas of the site away from the active areas of the site.
- Construction of maintenance roads;
- Air monitoring during intrusive activities to ensure action levels on site were not exceeded; and
- Installation of a passive gas venting system on both the North and East Dike Areas.

Site Contacts

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